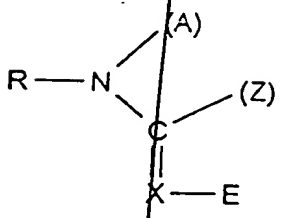
Patent Claims

1. Use of agonists and antagonists of the nicotinergic acetylcholine receptors of insects for the non-systemic control of parasitic insects, such as fleas, lice and flies, on humans and on animals.

2. Use according to Claim 1, characterised in that compounds of the general formula (I)



(I),

in which

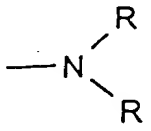
R represents hydrogen, optionally substituted radicals from the group comprising acyl, alkyl, aryl, aralkyl, heteroaryl or heteroarylalkyl;

A represents a monofunctional group from the series comprising hydrogen, acyl, alkyl and aryl or represents a bifunctional group which is linked to the radical Z;

E represents an electron-attracting radical;

X represents the radicals -CH= or =N-, it being possible for the radical -CH= to be linked to the radical Z instead of an H atom;

Z represents a monofunctional group from the series comprising alkyl, -O-R, -S-R and



or represents a bifunctional group which is linked to the radical A or the radical X,

are used as the active compound.

3. Use according to Claim 1, characterised in that compounds of the formula (I) according to Claim 2, in which the radicals have the following meanings:

R represents optionally substituted heteroarylmethyl, heteroarylethyl containing up to 6 ring atoms and N, O, S and in particular N as hetero atoms,

A represents hydrogen and optionally substituted alkyl or alkylene containing 1-4 C atoms, it being possible for the alkylene groups to be interrupted by hetero atoms from the series comprising N, O and S,

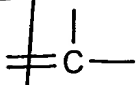
A and Z can form a saturated or unsaturated heterocyclic ring together with the atoms to which they are bonded. The heterocyclic ring can contain an additional 1 or 2 identical or different hetero atoms and/or hetero groups.

E represents NO_2, CN or halogenoalkylcarbonyl,

X represents -CH= or -N=,

Z represents optionally substituted radicals alkyl, -OR, -SR or -NRR, in which R has the abovementioned meaning,

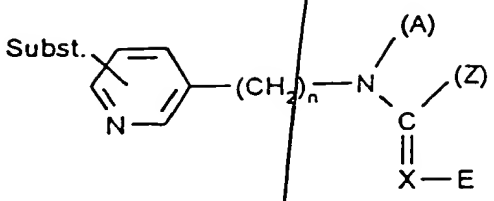
Z can not only form the abovementioned ring, but can also, together with the atom to which it is

bonded and the radical 

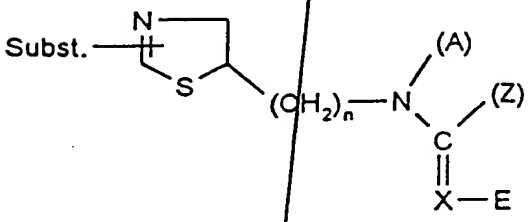
instead of X, form a saturated or unsaturated heterocyclic ring,

are used as the active compounds.

4. Use according to Claim 1, characterised in that compounds of the general formulae (II) and (III):



(II),



(III),

in which

n represents 1 or 2,

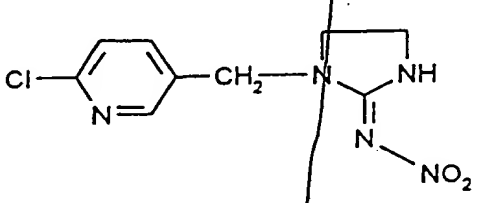
Subst. represents halogen,

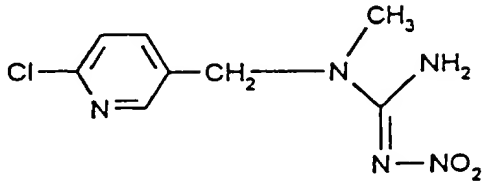
and

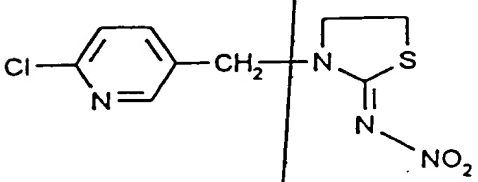
A, Z, X and E have the meanings given Claims 2 and 3,

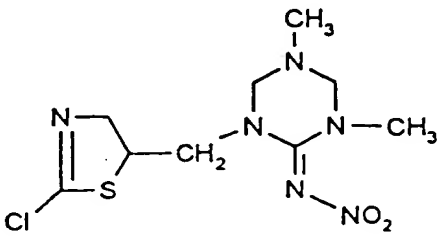
are used as the active compound.

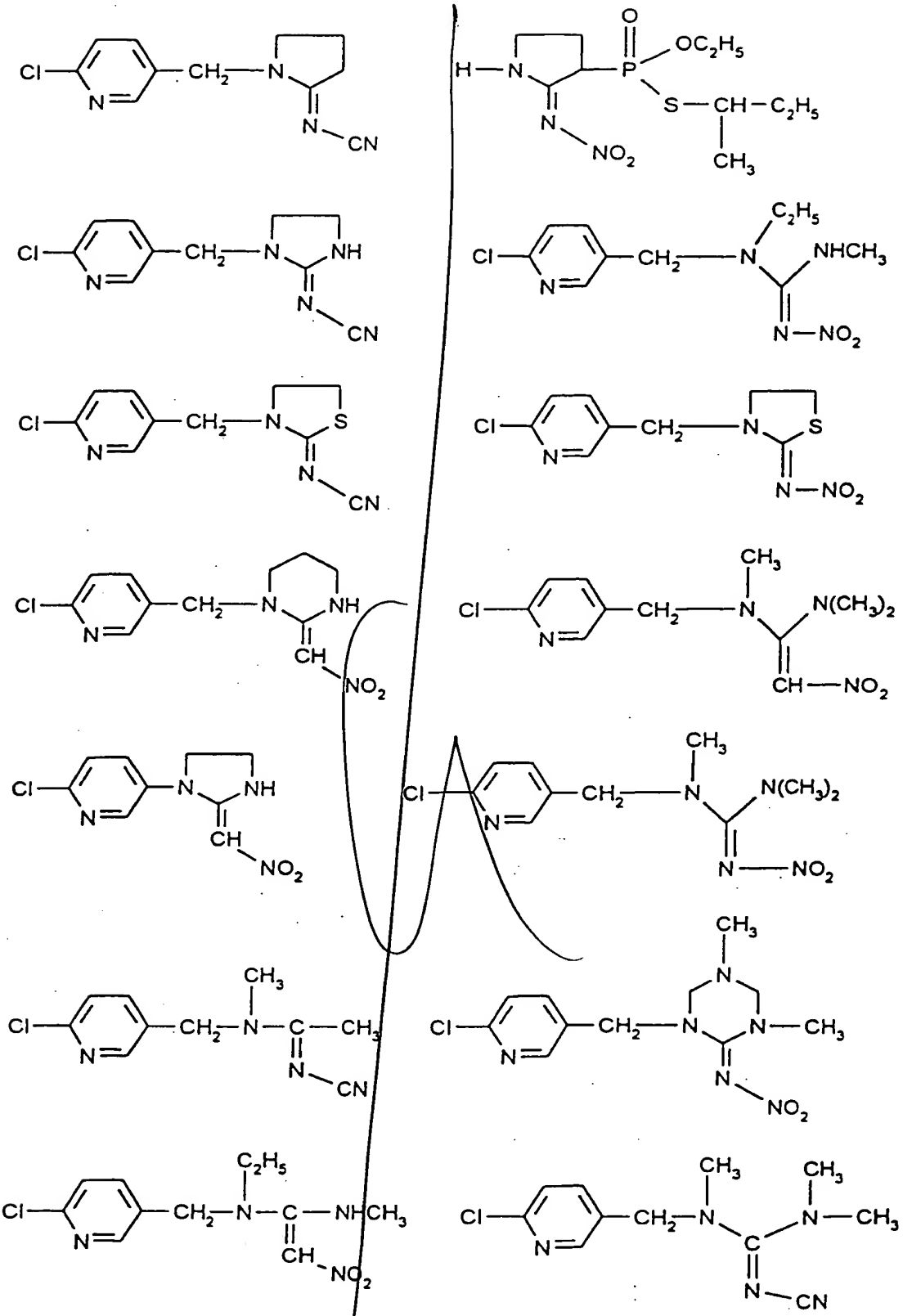
5. Use according to Claim 1, characterised in that one or more of the following compounds:

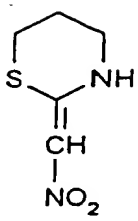


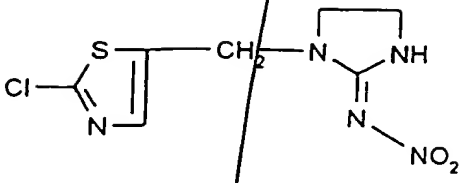


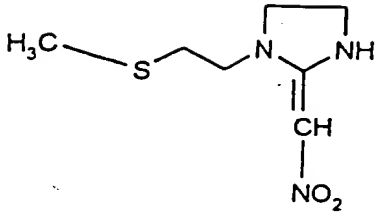


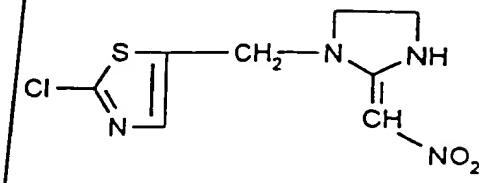












are used as the active compound.

6. Use according to Claim 1, characterised in that imidacloprid = 1-[(6-chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinium is used as the active compound.

7. Agents for the non-systemic control of parasitic insects on humans and animals, characterised in that they contain the active compounds according to Claims 1 to 6.

8. Shaped articles for the non-systemic control of parasitic insects on animals, characterised in that they contain the active compounds according to Claims 1 to 6.

9. Use of the active compounds according to Claims 1 to 6 for the preparation of agents for the non-systemic control of parasitic insects on humans and animals.